Table of Contents

CIP - Coding, Individualization, Programming

CIP - Coding, Individualization, Programming

Model: E65 - 745i / E66 - 745Li

Production Date: 11/2001 - E65, 03/2002 - E66

Objectives of The Module

After Completing this module, you will be able to:

• List preconditions to perform CIP on a vehicle.

• Understand the VKM "mask" to perform settings.

• Perform Programming using CIP.

• Perform control module initialization after Programming.

• List the additional reference information needed for the rear seat side-impact airbag Activation/Deactivation.

Purpose of The System

The "CIP" program was launched with the release of the DISplus CD - version 28.0. CIP Programming is now contained on a separate CD for the DISplus/GT1 and will be updated as an individual CD. For installation instructions refer to SI B09 03 02. *Before proceeding on a vehicle, you must always refer to the latest version of SI B09 05 01 for additional details and updated information!*

CIP stands for **C**oding, **I**ndividualization, **P**rogramming.

- Coding - Updates and aligns (vehicle & country specific) the software resident in the control modules.

- Individualization - Vehicle and Key specific settings are changed according to customer requests and stored in the Vehicle & Key Memory.

- Programming - Data/programs in the control modules are activated (new - basic module) or updated (including coding to the specific vehicle).

New Developments:

- Graphic user interface, browser-based (clear display and on screen prompting).

- Integrated compatibility and management program (automatic prompting in the selection of hardware/software which must be installed/altered).

- Integration, authentication and signature (protection against unauthorized access to control modules).
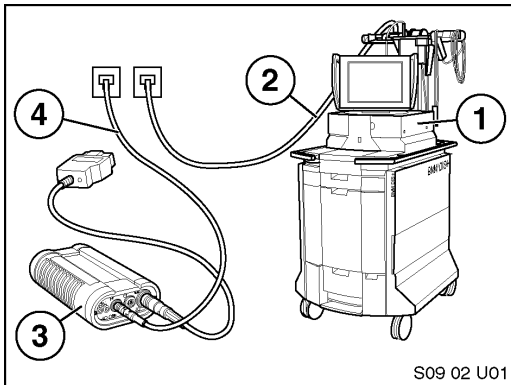
Programming

General Rules for Programming

The procedure for programming control modules on E65/E66 vehicles is controlled by the CIP program. The following preconditions must be followed when using the CIP program:

- First connect the vehicle to an approved BMW battery charger (Deutronic Automotive Power Processor - *follow the instructions found in SI B04 11 02*) and never disconnect during programming. This charger must be connected in PS Power Supply Mode.

- The date and time must be set correctly in the DISplus/GT1 ("Administration"-button on initial startup screen to check and modify).
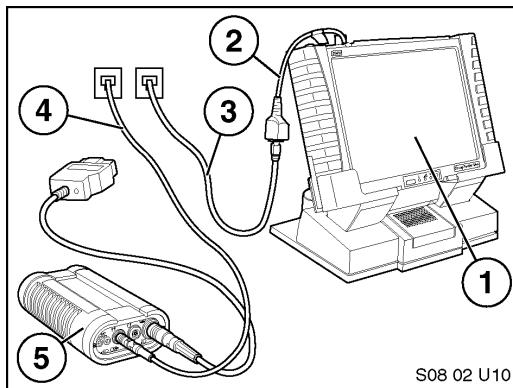
General Rules for Programming

S09 02 U01

• Diagnostic head must be hard wired to the network drop to ensure uninterrupted pro gramming. (do not use radio connections)

Using DISplus:
1. DISplus
2. SI LAN cable
3. Diagnostic head
4. DK LAN cable

S08 02 U10

Using GT1:
1. GT1
2. LAN Adapter BT 1:1
3. SI LAN cable
4. DK LAN cable
5. Diagnostic head

• Park the vehicle where it does not obstruct (programming may take up to 4 hours).
• All control modules must be installed and functional.
• Perform a fault memory deletion with *"Quick Clearing"*.
• Readout and print Individualization settings with the CIP Program *(Vehicle & Key Memory will be deleted during programming)*.
• Read out (*and print if applicable*) Instrument Cluster/Control Display (*mileage, Condition Based Service data,* radio station settings, etc.).
• Engine must be off and cooled down (trans. oil temp. must be < 85° C).
• Transmission in P or N position, vehicle must not move.
• Coding/Programming all control modules (*with the ignition on - KL15*), except the CAS.
• Coding/Programming the CAS module with the ignition switched "off" and key removed.
• Switch off *all* electrical consumers.
• Do not move seats, trunk lid, steering wheel, locks, windows, etc.
• Warning: wipers can move unexpectedly (make sure path is clear and moisten glass).
• Navigation CD V19.0 must be available when programming with CIP.
• *Print as you go for all CIP procedures (Measures Plan, Program abort, multiple attempts).*
• Initializing control modules (indicated on screen).
• Re-establishing customer VKM settings overwritten during Coding/Program (reverts to factory settings).

Program Start

Using DISplus or GT1 with the diagnostic head connected to the vehicle, select "Coding/Programming" from the start mask.

When the program is started for the first time after a CD installation, there is a longer wait time (approx. 90 seconds).

```
BMW  Coding/programming  SELECTION

    1 CAR MEMORY
    2 KEY MEMORY
    3 ZCS/FA CODING
    4 SERVICE MEASURES
    5 PROGRAMMING
    6 ALIGNMENT EWS-DME
    7 ALIGNMENT EWS-DDE
    8 CIP

                                    S09 02 U02
```

- Start CIP by selecting **"8 CIP"**, then press the forward arrow. The initial CIP screen is then displayed.
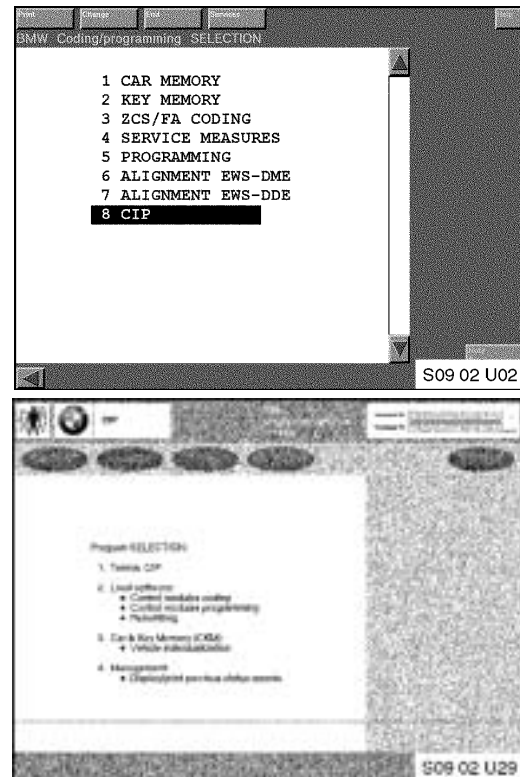
Note: After startup, CIP determines the vehicle order (VO) previously known as the Central Coding Key (ZCS) and records which control modules are installed in the vehicle. The vehicle order is not displayed on the screen.

Vehicle & Key Memory

Before programming Vehicle & Key Memory (VKM), the customer must be informed about the possible choices before delivery by filling out a Customer selection form (*attachment #6 of SI B09 05 01*).

The VKM screen displays all available VKM functions, their current settings, and the factory default setting. Please refer to *Attachment #5 of SI B09 05 01* for a list of available VKM settings for CIP.

Note: VKM Values can only be determined by CIP if all VKM relevant control modules are OK (found and no faults). A "Short Test" is important, to verify that all control modules are found before proceeding with coding or programming.

- Press the **"CKM"** button at the screen with the text "Program SELECTION: Load software, Car & Key Memory (CKM)" as shown above.

1. Not Active (some columns have selections for individual Key Memory)

2. Active (some columns have selections for individual Key Memory)

3. Symbol for factory setting

4. Function groups (quick path - Antitheft, Central Locks, Lights, etc.)

5. Encode car

43-02-03

Functions and Settings in VKM

• CIP reads out the data and displays a list of the current settings with alternative settings. Additional system setting details can be activated by highlighting the subgroup heading bar.

• Select the desired change by touching the "active" / "not active" selection box (*according to the Customer Selection Form*) or factory default settings.

• Press **"Encode Car"** to start the coding operation when all of the selections have been made. The save newly set function screen appears, press **"Back"** if additional changes are required,

or:

• Press **"Save"** and a screen is displayed with green check marks (status report) to confirm the VKM selections have been programmed/selected correctly.

• Press **"Finish"** to return to the selection screen, with the new selections marked accordingly (status of the current VKM settings). It is recommended to **"Print"** the display.

• Press **"End"** and **"Termin. CIP"** to terminate VKM and the "Coding/Programming" start mask is displayed.

Notes:

6

Programming

From the initial CIP start screen:

• Press **"Load SW"** with the text "Program SELECTION:"

• *Use the <u>latest copy of SI B09 05 01</u> "Programming/Coding Explanations" to perform the Programming procedure. This will provide the most current details and additional information.*

Airbag Reactivation Procedure

All airbag reactivation/deactivation on E65/E66 vehicles is performed using CIP. Refer to the following SIBs for details:

• *SIB # 72 03 99* - Rear Airbag Activation/Deactivation Procedure.

• *SIB # 72 08 97* - Deactivation of Airbags.

Note: A Deactivation/Activation code is required for rear airbags (available from the Technical Hotline).

Resetting and Correcting CBS Data

Correction of implausible CBS values is a (2) step process. First the value must be reset, then a correction factor must be applied.

<u>Step 1:</u>
This is found under *Diagnosis - Function Selection - Service Functions - Maintenance - CBS Reset - Test Plan.*

• At the CBS reset screens, select in turn the individual parameters with implausible CBS values and follow the on-screen instructions to reset them.

• Exit CBS.

<u>*Step 2:*</u>
This is found under *Diagnosis - Function Selection - Service Functions - Maintenance - CBS Correction vehicle data - Test Plan.*

• At the CBS correction screens, select in turn the individual CBS parameters to be corrected and follow the on-screen instructions to correct them. ***Refer to attachment #4 of SI B09 05 01*** "CBS Correction" for the first correction factor(s) to be used.

   Note for example that if "Engine oil" is to be reset, this must be reset first, followed by other parameters in the order they are displayed on the screen. If this order is not followed, corrupted values will result.

• Exit CBS correction.

Notes:

Review Questions

1. List preconditions to perform CIP on a vehicle: _____
. _____
_____
_____
_____
_____

2. Why do some of the VKM function groups have five columns of selection settings?
_____

3. After installing a new control module and reviewing the control module selection list, control modules highlighted in orange indicate: _____

4. After completion of coding, the status report displays a red "X" to the left of a control module. What is your next action? _____
_____
_____
_____
_____
_____

5. When do you need to perform control module initialization? _____
_____

6. What additional references do you need for the rear seat side-impact airbag Activation/Deactivation function? _____
_____
_____